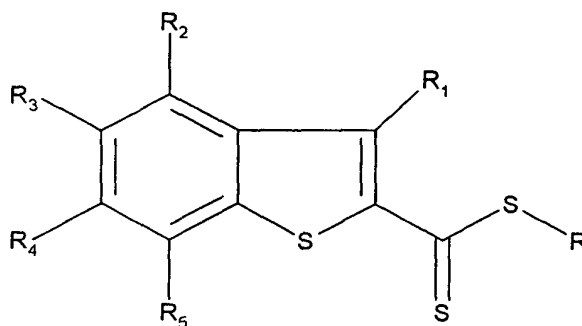


CLAIMS

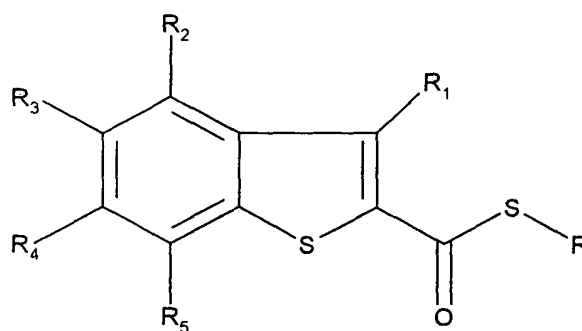
What is claimed is:

1. A method for the preparation of benzo[b]thiophenecarbodithioic esters of the formula:



wherein R is alkyl, R₁ is hydrogen, halogen, or alkyl, R₂, R₃, R₄, and R₅ are independently selected from the group consisting of hydrogen, halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, cyano, and aryl,

wherein said method comprises reacting an equivalent of an S-thiol ester of the formula:



with one-third of an equivalent of P₂S₅, 2 equivalents of at least one alkali metal carbonate, about 2.5 mole percent of a phase transfer catalyst, and a catalytic amount of water in hot

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22 toluene.

1 2. The method of claim1 wherein R is methyl or ethyl and R₁ R₂, R₃, R₄, and R₅ are
2 independently selected from the group consisting of hydrogen, chlorine, C₁-C₄ alkyl, and
3 trifluoromethyl.

1 3. The method of claim2 wherein R₁ R₂, R₃, R₄, and R₅ are hydrogen.

1 4. The method of claim 3 wherein R is ethyl.

1 5. The method of claim 1 wherein the alkali metal carbonate is potassium carbonate or
2 cesium carbonate.

1 6. The method of claim5 wherein the alkali metal carbonate is potassium carbonate.

1 7. The method of claim 1 wherein the phase transfer catalyst is benzyltriethylammonium
2 chloride or tetrabutylammonium bromide.

1 8. The method of claim7 wherein the phase transfer catalyst is benzyltriethylammonium
2 chloride.

1 9. The method of claim 7 wherein the phase transfer catalyst is tetrabutylammonium
2 bromide.

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- 1 10. The method of claim 1 wherein R is ethyl, R₁, R₂, R₃, R₄, and R₅ are hydrogen, the
- 2 alkali metal carbonate is potassium carbonate, and the phase transfer catalyst is
- 3 benzyltriethylammonium chloride.